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# USSR Report

TRANSPORTATION

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CIVIL AVIATION

FIRST DEPUTY MINISTER ON NEW AEROFLOT ROUTES

Moscow SOVETSKAYA ROSSIYA in Russian 1 Apr 83 p 6

[Interview by A. Illesh with First Deputy Minister of Civil Aviation B. Ye. Panyukov: "Wings Over the Planet"]

[Text] Starting today, the summer schedule goes into effect on Aeroflot's international lines. Questions of what new routes are planned for introduction in the near future and the ties with foreign air companies are discussed by First Deputy Minister of Civil Aviation B. Ye. Panyukov.

[Statement] At the present time, Aeroflot aircraft make regular flights to 117 places in 94 countries in the world. Starting 1 April, the intensity of air traffic will increase sharply: more than 350 trips will now be made abroad weekly. . .

[Question] Boris Yegorovich, could you please say a few words about the ties with the socialist countries.

[Answer] The flight geography among the socialist states is constantly expanding. New air technology is going out onto the routes. For example, the line that has become the first international line for the Soviet-produced wide-fuselage Il-86 aircraft is Moscow-Berlin. Starting in the summer, the air bus will begin to fly to the capital of the GDR [East Germany] with a frequency of four trips a week. And, as additional confirmation of what has been said, new lines will be opened in April, which will link Tashkent with Berlin and Tbilisi with Dresden. And something else that is new in our work is that the CEMA member-countries have created a number of joint-operation lines. Experience has shown us that this form of cooperation makes it possible to satisfy more effectively the demand for air shipments.

[Question] But these are, so to speak, "close" trips. At what new distant airports will aircraft with the Aeroflot begin landing?

[Answer] Air communication is developing with the countries of Africa and the Near East. Regular flights have been begun to Bujumbura (Republic of Burundi), Kigali (Ruanda Republic), Djibouti (Republic of Djibouti), and also Abu-Dhabi

(United Arab Emirates). Negotiations were recently conducted with delegations of the air authorities of the Republic of Upper Volta, the Togolese Republic, and the Gabon Republic. Consequently, those countries are already awaiting our liners. And here is an additional bit of information. Starting on 5 May, flights to Tehran will be renewed. Preparations are under way for opening up flights to Valletta (Malta) and Male (Maldive Republic). It is planned to open regular Il-86 flights to Athens and Prague.

[Question] How is the trans-Siberian mainline -- the most convenient path from Europe to Japan -- developing?

[Answer] Last year JAL [Japan Air Lines] began executing flights along that itinerary on the Boeing-747, and later, Air France. So many travelers and pilots have already evaluated the shortest and most convenient trans-Siberian mainline.

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## CIVIL AVIATION

### AEROFLOT NOTES PLANNED NEW ROUTES AT PRESS CONFERENCE

Moscow VOZDUSHNYY TRANSPORT in Russian 2 Apr 83 p 3

[Article by I. Grigor'yev: "On the Summer Schedule"]

[Text] A press conference was conducted at the international airport in Sheremet'yevo for Soviet and foreign journalists. The press conference was dedicated to the introduction of the summer schedule on the Aeroflot international routes.

Participating in the meeting with the journalists were First Deputy Minister of Civil Aviation B. Ye. Panyukov; member of the Board of MGA [Ministry of Civil Aviation], Chief of the Administration of Foreign Relations, V. D. Samorukov; and General Director of TsUMVS [Central Administration for International Air Communication] N. K. Poluyanchik.

Opening the press conference, Boris Yegorovich Panyukov remarked that, in the broad and varied program of the Soviet state's foreign ties, air communication occupies an exceptionally important role. The reinforcement of these ties serves a noble goal -- the preservation and reinforcement of the peace, and the further development of international relations.

The workers in Soviet civil aviation attach great importance to the development of Aeroflot's international ties. This is obvious, in particular, from the summer schedule for Aeroflot's international trips, which went into effect on 1 April. During this period -- from April through October -- Aeroflot will carry out more than 350 trips weekly on Il-86, Il-62, Tu-154, and Tu-134 aircraft.

At the present time, Aeroflot aircraft fly regularly to 117 points in 94 states throughout the world. The air liners of 29 air companies in 31 countries land in airports of the Soviet Union. Intergovernmental agreements and authorizations for flights link our country with 100 other countries.

On the eve of the changeover to the summer season, a new line appeared in Aeroflot's schedule: Moscow--Berlin--Dakar--Buenos Aires, flight SU-351/352. Aeroflot aircraft will make flights along that route once a week.

Special attention in Aeroflot's program for international ties continues to be paid to cooperation with the fraternal socialist countries. This cooperation

is being carried out both on a unilateral and multilateral basis. The flight geography is constantly expanding, and the frequency of the trips is increasing. For example, starting in the summer, the Il-86, which has been in successful operation for almost two years on the Moscow-Berlin friendship route, will begin to make four trips a week to the capital of the GDR. This is caused by the growing demand for shipments between our countries. New routes will be opened in April between the USSR and the GDR: Tashkent-Berlin and Tbilisi-Dresden.

Joint-operation lines operated by the CEMA member-countries have very promising prospects. For example, Sochi has been linked with Berlin, Budapest, Prague, and Bratislava; Simferopol with Berlin, Budapest, and Prague; Tbilisi with Varna; and Tyumen with Sofia.

Last year the wide-fuselage Boeing-747 aircraft of the JAL and Air France lines began flying along the shortest path that links the countries of Western Europe and Japan -- the trans-Siberian route. Starting in April of this year, the wide-fuselage DC-10 liners of the SAS, Scandinavian company, will begin flying over the trans-Siberian route.

As for the first Soviet-produced wide-fuselage Il-86 aircraft, it will appear on new regular lines: Moscow--Frankfurt-am-Main; Moscow-Sofia (twice a week under joint-operation conditions); Moscow--New Delhi; and Moscow-Hanoi. In addition, it is planned to open regular Il-86 flights to Athens and Prague.

Starting in May, flights to Tehran are being renewed. Preparations are under way for opening up flights to Valletta (Malta) and Male (Maldive Republic).

In conclusion, the administrative workers of the MGA answered questions that were asked by the journalists.

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## CIVIL AVIATION

### KUYBYSHEV AVIATION PLANT TO INCREASE FURNITURE PRODUCTION

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 7 May 83 p 1

[Article by SOTSIALISTICHESKAYA INDUSTRIYA correspondent A. Vorob'yev, Kuybyshev: "Not Only Aircraft. . ."]

[Text] Before making the trip to the aviation builders I telephoned several furniture stores in Kuybyshev. I asked all of them the same question, "Do you have a 'Kashtan' [furniture set] for sale?" The answers were identical: "Not just now -- the sets are quickly sold out."

During my visit I mention this to General Director of the Kuybyshev Aviation Plant, V. Zemets. Hanging on the walls of his office are photographs of the main output of that famous enterprise -- from old IL-2 ground-attack aircraft to modern TU-154 passenger liners.

"I think that soon the opportunities for trade will be increasing," the director replied. "This year we are doubling the production of furniture sets, which Kuybyshevers like so much.

The conversation continues in the new shop where upholstered furniture is assembled. The high-ceilinged well-lighted hall (that is precisely how one wants to call the shop) is flooded with sunlight. The light-blue walls create a special ambience. Painted on one of them is a life-sized picture of a "Kashtan" set. Under the picture is the bright inscription, "The nation is waiting for our output."

"Do you think that we only know how to make airplanes?" Zemets asks. "Judge for yourself. . ."

The comfortable divan, which moves easily along the floor on rollers, can be converted quickly into a double bed. There are two stylish upholstered arm-chairs and a specially designed table with a bar.

The processes for assembling the furniture in the new shop have been mechanized. Operator M. Osipova skillfully controls the stitching machine with a contour device. The machine was designed by the plant's engineers. The mechanized "artist" leaves figured lines on the pretty fabrics. The quality is flawless.

"People are eager to come here," shop chief V. Naletov says, "even though, right next door to us, in this same building, there are more prestigious shops. A skeleton force of cadre workers has been formed, and they are already veterans."

The shop chief points to a large banner, with the words: "The work groups of foremen V. Mal'tsev and A. Kochetova in April manufactured 220 sets of furniture instead of the 170 sets that were planned."

One is struck by the abundance of colors in the upholstered furniture. Any taste can be satisfied. The chief of the consumer goods department, Yu. Tal'skiy, points to fabric samples and says, "We get 25 types, and original fabrics from Yugoslavia, and from the best enterprises in our own country."

The answer given by the aviation builders of Kuybyshev to the decision of the 26th CPSU Congress to increase the production of consumer goods is best illustrated by the following figures. In 1975 the plant produced such articles with a total value of 5 million rubles, but now that amount has been tripled. They bear the company's trade mark -- wings that are extended skyward, as though symbolizing the collective's flight toward the assigned goal. Since the beginning of the year the "Kashtan" has acquired yet another distinguishing sign -- the honored pentagon, the testimony to the highest category of quality.

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## RAIL SYSTEMS

### MOSCOW METRO SERPUKHOVSKIY LINE CONSTRUCTION CONTINUES

Moscow IZVESTIYA in Russian 3 Jan 83 p 2

/Article by V. Belikov: "The Main Metro Line for the Capital's Southern Section/

/Text/ The third year of the Five-Year Plan has just begun. It will be remembered for an important event concerning the capital's metrorail system. The construction of a section of the new Serpukhovskiy line will begin. The line will have eight stations and be 14 kilometers long.

The express line will connect four rayons in Moscow's southern section. It is the most convenient type of city transportation system. Inhabitants of Moskvoretskiy, Proletarskiy, Sovetskiy, and Krasnogvardeyskiy rayons, where about 1 million of Moscovites live, will find themselves in the main line's "gravity zone." Express lines will start running toward the end of 1983.

"The construction of pedestrian passageways was completed between Sadoviy loop and Chertaniy quarter in time for the recent New Year celebrations," says M. Shkalev, deputy chief engineer of the Mosmetstroy. "Now we have to finish installing equipment and stowing tracks and complete other technological works."

At Serpukhovskaya station--the line's first underground station--escalators are ready for installation. At the next station, Tul'skaya station, the construction of the Avtozavodskiy bridge lobby is almost completed as well. A similar scene can be viewed at Nagornaya and Yuzhnaya stations. Yuzhnaya will be the last station on the line.

In 1984 Serpukhovskiy line will be extended to the center of the capital, where metrorail stations Polyanka and Borovitskaya will be constructed. During the last year of the Five-Year Plan the line will be even more extended, and the last station will be Prazhskaya station. Its architectural design will be carried out by metrobuilders from fraternal Chekhoslovakia.

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## RAIL SYSTEMS

### MORE ON PLANS FOR MOSCOW METRO TESTING FACILITIES

Moscow MOSKOVSKAYA PRAVDA in Russian 20 Feb 83 p 1

/Article by A. Amirkhanian: "Testing Site for Metrorail" /

/Text/ A testing site will be constructed at the NII /National Research Institute/ railroad transportation experimental loop. The site will be used for testing technology that will serve the country's metrorail systems.

A dispatcher at the control desk ordered the train to start, and the rolling stock of eight cars made its way along a zigzag-shaped route. Actually, it darted away since the speed of a metrorail train is exceptionally high--it equals 130 kilometers per hour! It left behind a kilometer-long tunnel and the covered testing site. At last, it stopped. Soon the train is again on its way. During this experimental trip the VNIIZhT /All-Union Scientific Research Institute of Railroad Transportation/ experts determined, using special instruments, traffic capacity of trains on the line per unit of time, the degree of the cars' comfort, and the reliability of technological parts of the route.

To tell the truth, we took a peek at the future of the metrorail system. We imagined that the testing site, which is 5.5 kilometers long, is already fully equipped. It is difficult to manage without a testing site today. Night hours are filled with planned activities at the metrorail. The stock has to return to the depot, it has to be inspected and repaired when necessary, and returned to the line early in the morning. The institute's builders need years, not hours for complicated experiments and tests. A need for technology serving the metrorail system increases every day.

What will be the stock in the year 2000? What climatic burdens will be acceptable in such cities as Novosibirsk and Alma-Ata? Many questions will be answered as a result of comprehensive tests conducted at the unique testing site. The line itself will be very complicated as well.

"In the future the capital will need the metrorail express lines. City-suburb type trains will deliver passengers downtown," says A. I. Glonti, director of the VNIIZhT metrorail department.

However, putting several express lines in operation is only a part of the task. In order to distribute the large flow of passengers to Moscow metrorail more evenly the line capacity needs to be increased to 50 trains, especially downtown and at loop stations. That is why the speed capacity of trains will be tested at the testing site. Several additional trips of super-fast express trains will allow for decreasing the interval between passenger stocks to 75 seconds. In addition, the testing site will become a home of the newest automatic blocking system equipment, electric power systems, ASU /auotmatic self-service information unit/, and telecommunication channels.

Furthermore, the original variable speed escalator at the experimental loop ought to undergo inspection. Its functioning principle is both simple and economical. During peak hours the escalator moves faster, and at other times it moves slower. A. N. Glonti shared with us the news concerning a new, interesting project: installation of video monitors at Moscow metro. The implementation of this exciting idea will free many employees. In this case the main decisions will be made at the testing site as well.

A few years ago emergency route employees at Izmaylovo capital depot set up the metro train which in 1935 was the first to enter Kirovskaya line. It was the only line at that time. The train became a landmark, a museum on rails. Today Moscow's underground city consists of over 180 kilometers worth of routes, and thousands of stocks and technological equipment. The latest equipment will be tested before the use at the experimental loop. Future blue express trains will gain power and speed there.

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## RAIL SYSTEMS

### ANTIVIBRATION TRACK BED TO BE TESTED ON NEW MOSCOW METRO LINE

Moscow IZVESTIYA in Russian 3 Mar 83 p 6

/Text/ Article by A. Amirkhanyan: "Hunters of Decibels"

/Text/ New and unusual tracks will be put at the capital metrorail system's Kakhovskaya station of Serpukhovskaya line. They will be antivibration tracks placed on rubber shock-absorbers. This project was developed by VNIIZhT /All-Union Scientific Research Institute of Railroad Transportation/ railway laboratory experts.

"Health limits for vibrations that can be experienced by people have existed for a long time," says Doctor of Technical Science N. Kravchenko, the laboratory director. "Experts strictly observe vibration parameters: speed, acceleration, and shifts of vibrations. Keeping vibrations within acceptable limits constitutes our task."

Research is being conducted at the laboratory in two directions. First, it is necessary to decrease the vibration level on lines that are presently in use. Positive results have been obtained by placing rubber shock-absorbers under the tracks and ties of the line. The vibration level decreases more than two-thirds of the normal level when the train goes over the "rubber run" section of the line. Such sections are already in use on some lines. Second, new types of underground railway systems need to be constructed.

Accompanied by A. Bagdasarov, the laboratory senior scientific worker and A. Titovskiy, assistant engineer of Mosmetrostroy tunnel's brigade No 6, we go into the shaft of the future "Kakhovskaya" station. It's part of the Serpukhovskiy line now under construction. Stepping over ties, we finally reached the experimental section of the station. Suddenly the ties end, and a new run begins. The ties look like large concrete frames. Tracks are laid along them. This method alone helps decrease vibrations to some degree. What is important is that installed in the new manner the tracks are insulated from the walls and floor of the tunnel, they appear to be afloat. The special rubber shock-absorbers serve as "water." Thus, tests conducted at the experimental VNIIZhT loop have yielded considerable results.

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## RAIL SYSTEMS

### HEAVIER TRAINS WITH TANDEM LOCOMOTIVES MOVE THROUGH URALS

Moscow GUDOK in Russian 19 Jan 83 p 1

[Article by GUDOK correspondent V. Kolobov (Chelyabinsk): "The '5,000 Tonners' Have Begun to Move Through the Urals"]

[Text] The first "5,000 tonner" with Bakal ore has arrived in Chelyabinsk. The weight of the train exceeded the schedule norm by nearly 2,000 tons. After a day the second such heavy train followed. The traffic of "5,000 tonners" on this leg, starting on 4 January, became regular.

No, new powerful locomotives have not appeared here. Devices, which enable a single locomotive brigade to control the tandem VL10 electric locomotives, were used. The system was developed by scientists of the All-Union Scientific Research Institute of Railway Transportation. Its adoption will make it possible to improve the process of transportation on the most heavily used leg of the Trans-Siberian Railway. For on such a run one locomotive brigade and "line" in the schedule are freed, the delivery of freight is expedited. Consequently, a reserve of the traffic capacity and carrying capacity of the leg appears.

As was reported in the Traffic Service of the South Urals Railroad, owing to the decrease of the difference of the weight norms on the mountain and flatland legs the trains are now running "without a change" of weight through Troitsk, Kartaly and Tobol to Karaganda. This is making it possible to link up the routes between Bakal and Karaganda and to ensure the transportation of Urals ore at a faster pace. And to deliver Karaganda coal in the opposite direction by heavy trains.

At present on the South Urals Railroad there are nine experimental "pairs," the driving of which the brigades of the Zlatoust Depot have mastered. Now the task is arising to broaden the limits of the use of such locomotives and to increase the weight of the trains on not only the mountain, but also the flatland legs.

Chelyabinsk engineers and assistants recently underwent training on the experimental Zlatoust electric locomotives. The opportunity has arisen to run through the Urals Siberian and Kazakhstan "5,000 tonners" and "6,000 tonners" without making them up again in Chelyabinsk, Tobol, Kurgan and Issil-Kul. But for this it will be necessary to increase the number of electric locomotives equipped with control apparatus for a system of many units.

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RAIL SYSTEMS

NUMBER OF HEAVIER, LONGER TRAINS ON MOSCOW LINE GROWS

Moscow GUDOK in Russian 27 Feb 83 p 1

[Article by engineer V. Kasatkin (Rybnoye): "The Number of Heavy Trains Is Increasing"]

[Text] Rybnoye is one of the largest classification yards on the Moscow Railroad. The production activity of the enormous collective of Ryazan railroad workers in many ways depends on how successfully it operates. Understanding this, the collective is exerting the maximum efforts for the successful fulfillment of each shift assignment.

Last year 18 heavy and long trains began to leave Rybnoye Station daily. The transport workers made up and sent off 6,844 trains of increased weight and length, in which an additional 12.6 million tons of national economic freight were hauled. This contributed in many ways to the early fulfillment of the plan of freight traffic during the second year of the five-year plan. The layover of through cars with reclassification was shortened as against the norm. The labor productivity came to 101.8 percent.

And now the collective is working with a good mood. More than 200 heavy and long trains, which made it possible to additionally haul about 500,000 tons of national economic freight and to free more than 100 "lines" in the traffic schedule of trains, which is considerably greater than the achievements of this period last year, have been made up and sent off since the beginning of the year.

In the total number of trains of the new formation there are more and more super-heavy trains, the weight of which comes to 10,000 tons. Whereas during all of 1979 only 180 such express freight trains were sent off, during 1982 more than 2,000 were.

And this year the number of superheavy trains is increasing: in half a month up to 70 10,000 tonners are being sent off.

The renovation of Rybnoye Station, which will increase its traffic and handling capacity, is continuing.

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## RAIL SYSTEMS

### MORE ON MOSCOW RAILROAD'S HEAVIER, LONGER TRAINS

Moscow LENINSKOYE ZNAMYA in Russian 23 Feb 83 p 2

[Article by A. David'yants: "The Giant Trains Are Running"]

[Text] The collective of the Moscow Railroad is the winner of the All-Union Socialist Competition in honor of the 60th anniversary of the formation of the USSR. It has been awarded the Challenge Red Banner of the CPSU Central Committee, the USSR Council of Ministers, the AUCCTU and the Komsomol Central Committee with placement on the All-Union Honor Roll at the Exhibition of USSR National Economic Achievements. The railroad workers of the capital's railway are utilizing the large reserve of the traffic, and especially the carrying capacity of the heavily traveled lines by increasing the weight and length of trains. Such an initiative, which was endorsed by the CPSU Central Committee, was begun in the Moscow-Ryazan Department of the railroad. The most favorable conditions for the passage of trains of record weight and length have been created here.

"Golutvin Station?"

"Yes, we hear you."

"A reminder: a '10,000 tonner' has left Rybnoye. It is on schedule. Give it a 'green light'."

After talking via selector with Golutvin Station, N. Glubokov, a train traffic controller of the Moscow-Ryazan Department of the railroad, explained to me:

"That is how before each departure of a giant train from Rybnoye Station, which is near Ryazan, we pave the way for it in advance."

And, after getting into contact with the engineer driving the next such train, the traffic controller told him:

"The track is open. You can speed up on the Golutvin-Voskresensk section."

"I understood you," the engineer responded.

Rybnoye to the Perovo Station in Moscow. This 175-km section of the railroad in recent years has been at the center of attention of the railroad workers of our country. Heavy trains weighing up to 10,000 tons make daily runs here. Whoever of the passengers uses the electric trains of the Ryazan route, has certainly seen these trains. They stretch out for 2 km. You would not run such a train on a siding--it would not fit. And if it were delayed on the main track, it would throw other trains off schedule. Therefore the train should cover the entire 175-km section without stops.

They ran a train of record weight and length on the Moscow Railroad for the first time on 5 March 1980. But at first the scientists of the All-Union Scientific Research Institute of Railway Transportation conducted experiments on the Shcherbinka beltline. Everything was studied: how the train would behave during movement, whether the power of the locomotives would be enough, whether the rails would hold up. Hundreds of calculations, measurements, checks and estimations were required. It was decided to use for driving two electric locomotives: one in front of the train and the other behind. While the running of the locomotives should have been carried out in synchronism. The tests conducted with the participation of specialists of the Moscow Railroad showed that it is possible to let out on the line system a superheavy train which contains two to three conventional freight trains. But on precisely what line system? The choice fell to the Moscow-Ryazan Department of the railroad. On this route the speeds of freight, passenger and suburban trains have basically been equalized--60 km/hr. This was important for the introduction of the innovation. It was also recognized that at the terminals of the section--in Moscow and Rybnoye--the railroad stations are convenient for the making up and receiving of giant trains. Here, incidentally, the station tracks have been lengthened.

An especially complicated situation usually forms on the segment of the track from Rybnoye to Voskresensk. The routes of trains from several directions meet here. And all the same, in spite of the difficulties, the transport workers have now learned to ensure punctually the passing of "10,000 tonners" over the route. An achievement of last year is the passage of 10 such super trains a day. By the time of the run of the giant train all the switching work is halted at the Moscow area stations, the other freight trains are diverted to side tracks. Special instruments have been installed for detecting the heating up of the axle boxes on the route. Specific steps to eliminate the troubles are taken in accordance with their signal, as well as the visual observations of the repairmen at one station or another. Recently an additional siding for the repair of cars on giant trains was specially created for emergencies in Voskresenk in the middle of the section. Here it is possible to delay the train, without upsetting the traffic schedule of other trains.

"Whereas the technology of making up such trains has been adjusted very precisely," S. Mayantsev, chief engineer of Rybnoye Station, states, "unfortunately, the schedule of the departure of trains at times is upset. The reason? The untimely delivery of cars to the station, the process of accumulating cars is taking place slowly. Frequently cars arrive here from Siberia and the Urals late, or else unevenly. The neighboring railroads--the Kuybyshev, the Southeastern--could give us much assistance in the formation of '10,000 tonners.' But they are operating in the old way: trains of normal weight and length, up to 50 cars in each, are arriving from there. We are spending much time to combine these shortened trains into a superheavy train and... are late in sending it off according to the schedule."

Now it is also clear that an additional track is needed at Rybnoye Station, so that the superlong train would not interfere with the other trains arriving at Rybnoye. Incidentally, soon "10,000 tonners" will run from here not only to Moscow, but also to the large Moscow area classification yards of Bekasovo and Orekhovo-Zuyevo. The time is coming to ready here, in Rybnoye, two giant trains at the same time. But this presumes the more efficient organization of the work of many services of the railroad.

There is another problem: the technical condition and reliability of the "10,000 tonner" trains. Their stopping on the track is an extraordinary event. If it occurs not at Voskresensk, where the conditions exist for this, a "stoppage" arises: the other trains line up on the railway, their traffic schedule is canceled. Hence, it is necessary for the moving part of the cars to have a safety margin and increased reliability in transit and to serve trouble-free. At present this is not always being achieved. Constant reproaches are being addressed to the inspectors of the cars. They do not always perform their work with great responsibility and at times give the "all clear" for the road to cars in bad repair. But the blame for this, obviously, lies not only on the inspectors. One of the narrow links of the railroad is traced in this fact. Many cars in use are far from the norms of good technical condition. They require prompt repair, but they are being put out on the line. And it is no wonder that these cars, which have been inserted in the "10,000 tonner" trains, can at any moment give a surprise. The uneven delivery of cars also affects the quality of inspection. The inspectors hurry, simply to send off the train according to schedule. The technical condition is as if receding into the background. It is hardly possible to tolerate this. And, of course, there are simply not enough workers: the staff of inspectors is constantly not up to full strength.

The following also happens: the train is ready for departure, but the locomotive has not yet arrived. The point is that not all electric locomotives have been equipped with special radio communications and signaling devices of the break of the brake line of the train. In the very near future this problem will be solved. In the Moscow-Ryazan Department of the railroad there are more and more engineers who know how to drive "10,000 tonners." But the locomotive brigades have one major complaint against the transport workers: it is necessary to suffer a long time in awaiting the making up of the train, and the working time of the engineers is being used inefficiently. It must be hoped that the increase of the number of giant trains will eliminate this problem of the "relaxation" of brigades during working time.

The increase of the weight and length of trains made it possible to increase the carrying capacity of the routes in the case of the same technical equipment of them by 10 percent. On the Ryazan approach to Moscow it was possible by means of this to decrease by nearly 20 percent the number of freight trains making runs, by which a new reserve of the traffic capacity and the acceleration of the progress of national economic freight was created. The railroad workers of the capital, by developing their initiative, which was endorsed by the CPSU Central Committee, intend to make the Moscow-Ryazan Department the main line of giant trains.

## RAIL SYSTEMS

### STATUS OF BURYAT SEGMENT OF BAM LINE REVIEWED

Moscow GUDOK in Russian 19 Jan 83 p 2

[Article by F. Khodakovskiy, manager of the Nizhneangarsktransstroy Trust, Hero of Socialist Labor, Severobaykalsk: "The Rails Run to the East"]

[Text] The very complicated Buryat segment of the Baykal-Amur Mainline (BAM), from the point of view of its total length, constitutes one-sixth of the BAM, but approximately one-third of all the capital investments have been set aside for its construction. In May, for the 60th anniversary of the Buryat ASSR, we intend to have a noticeable increase in the total assimilation of the construction-and-installation operations. But before that it is necessary to analyze carefully what has been done, in order to take with ourselves into the third year of the five-year plain everything that is best and to eliminate the shortcomings. This is required of us by the November 1982 Plenum of the CPSU Central Committee, the decisions of which were perceived by all the transportation builders as a guide for action.

And so, behind us are almost eight years of intensive, sometimes heroic labor. The assault parties of the trailblazers encountered tremendous difficulties. They included seismicity, the severe climate, and the lack of roads. In a word, all the "charms" of the thinly populated taiga country of the northern Baykal area.

The years that passed were not only years of creation, but also of training, of mastering the art of tremendous construction under such complicated conditions.

And so the remote centuries-old taiga has come to new life. Along the itineraries, settlements of construction workers have grown up, with a housing fund of more than 360,000 square meters. Of them, 45,000 -- housing that is already in constant execution -- is for the railroad men. In the young BAM city of Severobaykalsk and in the settlements, schools, kindergartens, dining halls, houses of culture, a museum, and a picture gallery have been opened.

And when all the conditions for people's labor and recreation had been created, things began to go well. The laying of the railroad track is proceeding successfully. On the Buryat sector the work trains travel on 345-kilometer-long proving ground. The drilling of three tunnels has been completed.

The railroad men of the North Baykal Section of the Baykal-Amur Railroad have become completely equal participants in the construction, delivering equipment and materials to us. The 550-meter-long bridge of the Vitim, which unites the Buryat and Chita sectors, has been called the bridge of friendship.

The industrial assimilation of the taiga country is proceeding intensively. The production-enterprises combine in Novyy Uoyan has begun producing reinforced-concrete articles. That has enabled us partially to provide ourselves with lumber and reinforced concrete and to bring in less of them from far away. The first motor vehicle that had undergone capital repair was released by the central machine-repair shops. They will give second life to Magirus trucks and other equipment. And, of course, those enterprises, with the passage of time, will become part of the industrial complex for serving the northern Transsib.

The transportation builders of the Buryat sector are rightfully proud of their successes. But one must never rest on what one has achieved. It is necessary to strive persistently to increase the effectiveness of production, in order to obtain the best return on every ruble that has been invested.

In 1982 the amount of construction-and-installation work that was assimilated on the basis of a general contract was 30 million more than in 1981. But were all the reserves used? After all, in the second and third quarters of last year, the work rates dropped sharply. There was a lagging behind in the schedule for laying the track. Let's just imagine: can, for example, grain-growers allow themselves to work when it is cool? No, they would be left without a harvest. In the area of the Buryat sector, the annual temperature variation exceeds 80 degrees. It is obvious that it is more desirable for the basic volumes of the work to be carried out during the warm period of the year.

One cannot consider to be successful the watch method of the mechanized column of the Zapbamstroymekhanizatsiya Trus, which led to a situation in which, during the changes between shifts, the rhythm was broken. And in a few places the construction sites were empty for 10 days at a time, and heavy equipment stood idle! That made it impossible to make up for lost time when fulfilling the target task. But the subdivisions of the Mostostroy-9 Trust were captivated by putting in the amenities in the watch settlements. Of course, this is a necessary job, but what is bad is that it was carried out to the detriment of the rates for erecting the bridges. In a number of construction-and-installation trains of the Nizhneangarsktransstroy Trust, their administrators, instead of taking a businesslike approach to the resolution of the tasks that were assigned, sought out dozens of reasons why they could not fulfill the assignment. And, alas, that's what happened!

True, the steps that were taken changed the situation radically. There followed a powerful spurt in the third quarter. That made it possible to make up for what had been missed, but also to exceed the planned indicators. Within a short period of time, more than 40 kilometers of railroad track were laid. By October the transportation builders of the Buryat sector reported the preterm fulfillment of the annual planned assignment.

A high rate was achieved at the final stage of the year, when, among the subdivisions, there was an especially broad extension of the competition in honor of the 60th anniversary of the formation of the USSR. By the day of the glorious celebration, the steel rails of the BAM had arrived at side-track No. 1 of the railroad bypass of the Severo-Muyskiy Tunnel. Placing my hand on my heart, I will say that the laying of the track could have gone considerably farther and, in any case, could have risen to the highest point on the Severo-Muyskiy Range. But what held that work back was the tardy delivery of crossties, which also were provided in insufficient volume. It can be hoped that this kind of "brake" will not arise on our path in the future.

The chief conclusion from last year consists in this: the time has come to stabilize the activities of all the subdivisions that are employed on the Buryat sector, and to bring up the lagging collectives until they reach the level of the advanced ones.

I would like to cite an example for the Nizhneangarsktransstroy Trust. As a whole the plan was fulfilled with a considerable overage, but several of SMP [construction-and-installation trains] experienced serious difficulties. We have achieved an overall profit of 600,000 rubles, but we also have subdivisions which are operating at a loss, where the operations are carried out with an exceeding of the estimated cost. Take, for example, SMP-708 and SMP-575, which are situated under identical conditions, and are even deployed alongside of one another, but the practical results are directly opposite. The collective of SMP-708 has been awarded the challenge Red Banner of Min-transstroy and the Central Committee of the trade union, but the workers of SMP-575, which, incidentally, is an older collective, just cannot raise themselves from the level of the laggards.

There is only one way out: it is necessary urgently to increase the labor and production discipline of every worker.

An important means for achieving this in Nizhneangarsktransstroy and the other trusts has been the decisive struggle against losses of work time; the efficient placement of the personnel; the well-thought-out workload placed on the collectives; the further dissemination of the progressive form of labor -- the brigade contract; and the improvement of the system of psychological and material incentives. I am convinced that even under the difficult conditions of the BAM it is necessary to strive for the industrialization of construction, for the sharp intensification of the labor performed by the workers on the BAM. And that is the course that we have taken.

At the present time the collectives at the construction subdivisions of the Buryat sector are taking their 1983 socialist pledges. This is a very important campaign, in which it is necessary to take into consideration the experience of last year. In the third year of the five-year plan we are confronted by strenuous tasks, the successful fulfillment of which will require the maximum mobilization of our efforts, the precise interaction of all the related organizations.

It will be necessary to complete the railroad bypass of the Severo-Muyskiy Tunnel. That will provide an opportunity for the tunnel builders to use trains

to bring up equipment and materials directly to the portals and shafts. It is necessary to open work traffic through the Baykal Tunnel, to extend the steel track to Taksimo -- the future large-scale junction station on the main-line. One of the chief tasks is to speed up the construction of structures for the locomotive, railroad-care, and energy managements of the railroad, and to intensify the attention paid to structures intended for social, cultural, and everyday purposes.

The goal of the construction subdivisions of the Baltic republics and Leningrad, which are sponsoring the Buryat sector, is to expand the construction of housing in the settlements of railroad men and in Severobaykalsk.

The first step toward the fulfillment of the pledges has been the shock labor since the beginning of the year.

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## RAIL SYSTEMS

### TURKMEN ASSISTANCE IN BAM CONSTRUCTION CONTINUES

Ashkhabad TURKMENSKAYA ISKRA in Russian 3 Feb 83 p 2

[Article by N. Grigor'yants, member of the TURKMENSKAYA ISKRA worker-correspondents post on the BAM [Baykal-Amur Mainline]: "The Taiga Gives an Exam"]

[Text] It has been two years since the TURKMENSKAYA ISKRA worker-correspondents post has been in operation at our country's stupendous construction site -- the Baykal-Amur Railroad Mainline. Reports by the construction workers discuss the strenuous everyday life of the collective of the Turkmenbamstroy construction-and-installation train, and their current affairs and plans for the future. Unfortunately, all the questions have not yet been resolved, particularly those dealing with material-technical supply.

The following report is the latest one from the worker-correspondents post.

On the eve of the new year of 1983, there was an important and joyous event for the Turkmen builders on the BAM: we had prepared for the handover for operation of our own industrial base -- our first offspring. Now it would be possible to switch over to capital-construction projects at the settlement for the Larba station. We dedicated that success to the 60th anniversary of the formation of the USSR. Here, 132 kilometers from Týnda, the flag of the Soviet Turkmen Socialist Republic flutters proudly.

We took one and a half years to approach the new goals, although we were supposed to hand over the industrial base a year ago. Why did the job stretch out that long -- the job of activating this important objective? Looking back, one comes to the conclusion that much depended upon people other than us construction workers. Sometimes the republic ministries forgot about us. Every construction site in the country still does not have the most necessary machinery and equipment.

Here are several facts which speak eloquently about the difficulties. During the first ten-day period of January, 61 seals to close up the window openings of the buildings in the railroad terminal and the nursery were brought in from

from Tynda. In 50-below weather, the lads in A. Chukharev's brigade manually unloaded them, because there was no truck crane. We have been asking for one for more than a year, but our requests remain unsatisfied.

A hopper of cement was brought in and, once again, there was a problem: there is no cement truck. Once again, the lads unload it manually. Soon we shall build a large-panel five-story building with 45 apartments. Are we really to believe that we will have to accept the reinforced-concrete slabs manually? Each time we ask for help from the construction workers in other republics. And yet, judging by the work volumes, we don't really need too much: two truck cranes, a 10-ton MAZ [Minsk Automobile Plant] [truck] and a 25-ton one mounted on caterpillar treads, four trucks, two MMZ-555 dump trucks, a MAZ or KamAZ prime mover with trailer for hauling panels, and a cement truck. We also need a water truck, a turning lathe, and a ZIL-130 panel truck.

By way of sponsorship aid, all this equipment could be given to us, with no detriment to themselves, by Minvodkhoz and Goskomsel'khoztekhnika. Also, other ministries and departments could help the people on the BAM, because what we are building on the BAM is a construction project for the entire republic, and help should be given to the Turkmen builders not just by the TuSSR Minstroy.

The people of Turkmenbamstroy also sense that no attention is being paid to them by the workers in the arts. Performing artists from Armenia, the Ukraine, and Moscow have come to us in Larba, but there has not been a single concert brigade from our own Turkmenia.

During the time that has passed, the composition of our brigade has changed somewhat. Certain people have left us because of their weak will, and because of their lack of discipline. The taiga gives a strict exam. But those who remain are currently rejoicing together about our first large success. They are too many to mention by name. But here are a few of those who have worked on the BAM, hand in hand, for a year and a half: driver K. Amatov; unskilled laborer A. Begliyev; carpenter A. Sushbayev; combined-brigade leader G. Davydov; installation worker N. Lipovskoy; electrical welders A. Markov and A. Kozlenok; plasterer-painters L. Lukasheva, G. Lipisvitskaya; mechanizers I. Lukutov, I. Potemkin, and Ye. Vakhmikov; and timber procurement specialists A. Korobkin, A. Pchelintsev, and N. Rybachenko.

The capital-construction projects have currently been begun -- the railroad terminal, kindergarten, and medical-aid and obstetrics station. Despite the difficulties, we are attempting to carry out the construction ahead of the schedule. And we are relying upon substantial assistance from the republic's ministries and departments.

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## RAIL SYSTEMS

### INTENSIFYING DEVELOPMENT OF LITTLE BAM LINE

Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 22 Jan 83 p 1

[Article by TASS correspondent V. Biryukov, Tynda, Amur Oblast: "The Large Affairs of the Small BAM [Baykal-Amur Mainline]"]

[Text] The acceleration and increase in the return on the funds expended for the construction of the Baykal-Amur Mainline is aided by the shock work performed by the railroad men of the small BAM. The level of productivity that was planned for the end of the five-year plan has been achieved by the operations personnel on the Bamovskaya-Tynda-Berkakit railroad line. The volume of planned shipments in the third year of the five-year plan will exceed the planned level here.

The headlong rates of industrial assimilation of the BAM zone, and primarily the Neryungrinskoye coal deposit, required the railroad men to re-examine the deadlines for the assimilation of the route. The reserves for acceleration were discussed by the chief of the Baykal-Amur Railroad, L. Lotarev:

"The construction workers erected the small BAM with a sufficient capacity reserve that makes it possible to transport a greater amount of freight than is currently being transported. However, this sector is not one of the easy ones. It has a large number of sharp turns and protracted rises and falls, and also the country has not had any experience in operating railroads under such complicated natural and climatic conditions."

The assimilation of the route within the shortest possible period of time -- that is the task that confronted the first all-union detachment of young railroad men that arrived here three years ago. Those railroad men constituted the skeleton of the labor collective of the Tynda Section. The complexity of this task is attested by just one example: in the first year of the five-year plan, despite all the efforts, the small BAM could not be brought up to the planned productivity. But during the next year it was overfulfilled -- the young people had acquired the skill that makes it possible currently for every third locomotive brigade to drive heavy-weight and long trains confidently.

The path to success is well known: well-organized mentoring; time and motion studies of the trips made by the best engineers; the daily analysis of the work performed by every diesel-locomotive crew. But it is one thing to know one's reserves, and another thing to be able to apply them in everyday practice.

The acceleration of the rhythm of the transportation conveyor belt depends not only on the locomotive brigades: it is also guaranteed by the trackmen, the traffic specialists, the communications men, and many other specialists. They maintain the high quality of the track, increase the static load of the railroad cars, and, in cooperation with the miners, timber procurement specialists, and construction workers, reduce the amount of idle time for the rolling stock during loading and unloading.

To no small degree the accelerated assimilation of the capacities of the small BAM is also promoted by the re-equipping of the locomotive pool with new diesel locomotives from the Voroshilovgrad Plan, which are 1.5 times more powerful than the previously operated locomotives and which are more adapted for work under the conditions of Siberia.

The decisions of the November 1982 Plenum of the CPSU Central Committee orient the railroad workers of the BAM on the further search for reserves. By means of the more complete work load placed on the railroad cars, the increase of the train weights and the speed of their traffic, and the rise in the level of professional skills and the increase in discipline in all links, the collective of the Tynda Section of the railroad decided that in 1985 it would process approximately 11 million tons of freight -- a threefold increase.

All the organizational and technical measures are currently aimed at this. This is promoted by the patriotic movement "I am the boss on the mainline!" which has been broadly extended and which has been seized up by all the collectives on the railroad.

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## RAIL SYSTEMS

### DEVELOPMENT OF FUEL SUPPLY BASES ALONG BAM ROUTE

Moscow NEFTYANIK in Russian No 12, Dec 82 pp 41-43

[Report of interview with Leonid Yakovlevich Vaynrub, chief designer of the SKB [Special Design Bureau] "Transnefteavtomatika" by L. Yevstratova: "Petroleum Supply Bases on the BAM [Baykal-Amur Trunk Line] Tracks"]

[Text] The TsK VKP(b) [All-Union Communist Party (of Bolsheviks) Central Committee] and Sovnarkom [Council of People's Commissars] decree on surveys on the BAM was approved in 1932. And before long the first survey parties left for the taiga. By 1936 all the necessary surveys had been made and construction operations on the route were begun. But construction of the Trans-Siberian trunk line was interrupted by the Great Patriotic War. After many years, in January 1972, a detachment of construction workers, who were to revive the work begun, got off on the BAM once again. And in April, on the day of the Leninist communist subbotnik, the first hundreds of meters were cut through the taiga. The BAM is made up of 3,000 kilometers of track, 150 large bridges, 27 kilometers of tunnels, over 200 stations and over 20 large settlements. At the call of the party and government, persons with the most diverse occupations have come to this largest construction project of the century from all union republics. And petroleum product supply workers have been among them.

Among other very important problems at the start of construction on the Baykal-Amur Trunk Line, efficient and regular supply to the project of petroleum products held a special place.

The lack of motor roads and water or rail routes and the availability of just two petroleum supply bases and several small oil storage depots near the trunk line confronted employees of the RSFSR Goskomnefteprodukta [State Committee for the Supply of Petroleum Products] and its administrations--the Irkutsk, Yakutsk and Khabarovsk administrations--located in this region with serious problems.

D. I. Vostrukhin, chief of petroleum supply bases of the RSFSR Goskomnefteprodukta, said: "As soon as the Committee was assigned the task of providing the BAM with petroleum products, steps were taken quickly to develop and introduce mobile petroleum supply bases and to strictly supervise their work when they were put into operation."

Our readers know what mobile petroleum supply base-trains are. As long ago as 1975, the year they were introduced, we showed one of the versions of this train, which was approved with minor modifications, in one of the items in our September issue.

Today, when most of the track has been laid, and when the mobile petroleum supply bases have coped creditably with the tasks set for them, we talked with one of the developers of the plan for a mobile petroleum supply base, Leonid Yakovlevich Vaynrub, chief designer of the SKB "Transnefteavtomatika."

[Question] "Leonid Yakovlevich, tell us, please, who carried out the plan for mobile petroleum supply bases, and how was it carried out?"

[Answer] In 1975, operations to build the trunk line were developed on a broad front in several directions at the same time--from west to east, from east to west, from the Tynda station to Berkakit, and towards Urgal and Tayura. Taking into consideration the trunk line builders' critical need for petroleum products, all operations to establish the mobile petroleum supply bases--PNB's, as we called them--were speeded up as much as possible. As early as August 1975, drafting of technical specifications for the PNB's were completed in the SKB "Transnefteavtomatika," and in September work was begun on their manufacture.

Enterprises and organizations of the RSFSR Goskomnefteprodukta and the USSR Ministry of Railways took part in the manufacture and configuration of the PNB's: the Armavir Experimental Plant, the Novosibirsk and Khabarovsk administrations of the RSFSR GKN [Goskomnefteprodukta], the Vologda, Krasnoyarsk, Tashkent and Kyzyl-Arvatskiy plants of the MPS [Ministry of Railways], and others.

In June 1976, the components of the PNB's began arriving at the Skovorodino petroleum supply base, where the assembly, organization and testing of the PNB's were carried out. And in a month all four PNB's were sent to the first points for stationing on the BAM route--the stations of Tynda, Urgal, Berezovka and Tayura.

[Question] "The plan for the mobile petroleum supply bases was worked out for the first time; there had been nothing like them before this. And if the features of the harsh region where the trunk line was being built are taken into account, one can imagine how many problems arose. How were they resolved?"

[Answer] Naturally, the climatic and geographic features of the territory through which the track of the Baykal-Amur Trunk Line passes was taken into account in developing the plan. The mobile petroleum supply bases had to be moved by railway tracks as they were laid, in any season and in any kind of weather, and had to ensure the regular flow of petroleum products into tank trucks and other transport capacities, and to refuel the trucks working on the line.

[Question] "How is the regular supply of petroleum products to consumers provided, considering that the reserves of the mobile base must from time to time be filled up at stationary bases?"

[Answer] This has been achieved thanks to the fact that the tank unit of PNB's meant for storing and replenishing stocks of petroleum products includes no less than two groups of capacities, each of which is made up of several railway tank cars.

In the process of releasing petroleum products from one group of capacities connected to the distribution equipment of the PNB, the second is sent for refueling to the petroleum supply base, after which they are substituted. In that way, replenishment of stocks is carried out under a "shuttle" arrangement. This also makes it possible to release petroleum products regularly, regardless of how distant the PNB is from the stationary petroleum supply base.

[Question] "What kinds of petroleum products are being delivered to the BAM and what is the procedure for their release?"

[Answer] Each group of capacities in the PNB tank unit is intended for four kinds of petroleum products--one tank car for gasoline of the A-72, A-76 and A-93 grades and four tank cars for diesel fuel. A dismountable assembled piping system and flexible hoses serve as the operational pipelines.

Petroleum products are poured into the consumer's capacities and the tanks of transport vehicles with the aid of five distribution standpipes. The distribution standpipes are hooked up to the manifold [tekhnologicheskaya obvyazka] of the mobile petroleum supply base with the aid of flexible hoses equipped with easily detachable couplings.

In addition, there is also a unit of petroleum products in containers [tarnyye nefteprodukty] (in drums or cans) where a dismountable assembled gantry is positioned. Petroleum products in containers are loaded onto the consumer's trucks with it.

[Question] "Tell us how firefighting and other measures are carried out in operating such supply bases."

[Answer] Under the structural arrangement, the PNB is a branch of the stationary petroleum supply base (the registration point of the PNB) with a tank farm having a total minimum capacity of 840 cubic meters. For this reason, SNiP [construction norms and regulations] stipulated for petroleum depots of similar

capacity were incorporated as far back as in the stage of planning such petroleum supply bases. Dismountable assembled facilities for lightning protection and protection from static electricity, facilities for the accumulation [sbor] and runoffs of petroleum products, and a system for laying cable lines for the power supply and exterior lighting were developed and additionally hooked up. Each PNB has been completely furnished with the equipment necessary for its normal functioning in independent operation. There is a special firefighting train, so to speak, a water pumping station, a warming water tank and capacities to store the foaming agent.

[Question] "How does the PNB move along the track?"

[Answer] A site is prepared in advance, as a rule, along the dead-end spurs set aside for the PNB's on the sidings and future stations of the BAM. Before moving to another location, the dismountable assembled components are dismantled: electrical connections, operational pipelines, lighting facilities, and the like, which are stacked in a definite order on platforms. Then with the aid of switching equipment, the rolling stock of the PNB units are coupled and transported to the new destination point. No more than 2 days are spent in assembling and dismantling the equipment.

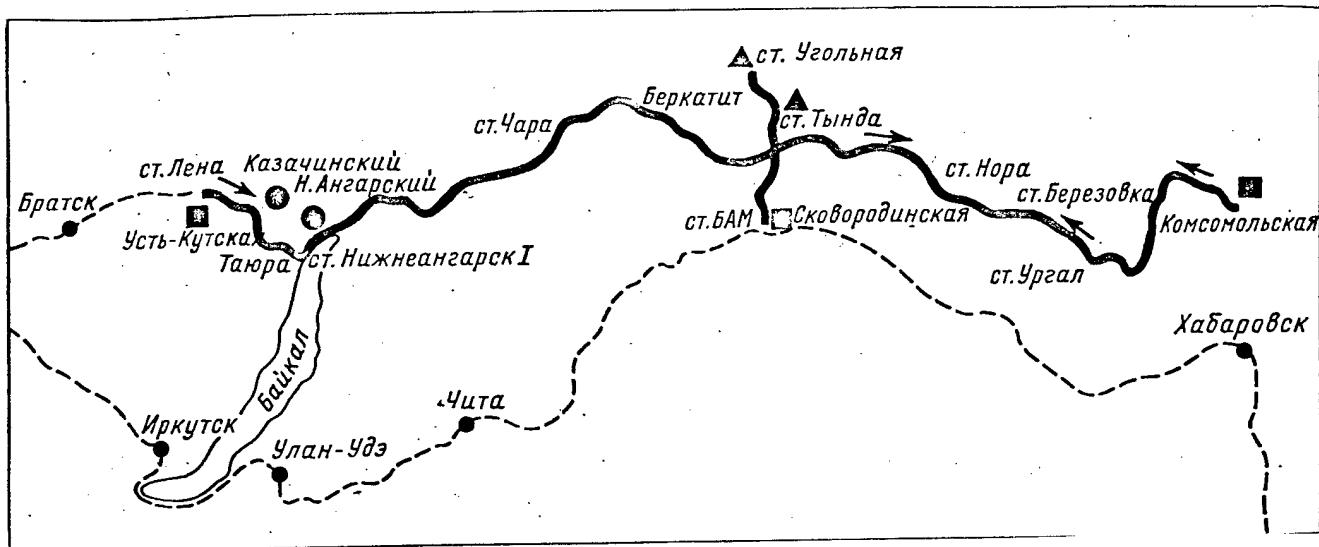
[Question] "How many persons attend to one PNB, and what are the conditions under which they live and work?"

[Answer] The mobile petroleum supply base is maintained by 16 persons. They work in two shifts. They live and work right here. A railway car equipped with reinforced heat insulation and an independent heating system has been provided for the personnel's rest. A place has been set aside in the living quarters for preparing food, for a dining area, and an administrative and dispatch section in which loudspeaker equipment has been installed for communicating with PNB operations areas, as well as sections with a dryer for special work clothing.

In the years that the mobile petroleum supply bases have been in operation, a vast amount of work has been carried out--hundreds of thousands of tons of the various petroleum products needed for the great construction project have been put into use.

At the present time, when construction of the BAM has entered its final stage, the problems of petroleum product supply require still more practical solution and skillful management of available resources on the scale of several territorial administrations. The collegium and presidium of the central committee of the Chemical and Petrochemical Industry Workers Union have decided to organize competition in accordance with the conditions of the All-Russian socialist competition among collectives of administrations and enterprises of the RSFSR Goskomnefteprodukta for the 11th Five-Year Plan, instead of competition among the administrations which are handling construction of the BAM, which has been carried out within the framework of the RSFSR Goskomnefteprodukta.

Construction of the Baykal-Amur Trunk Line is a great labor exploit by our people. And it is gratifying that the petroleum product supply workers have also contributed a small part of their labor to this exploit.



CAPTION: Location of petroleum supply bases, refueling stations on BAM route.

KEY: Squares represent operating petroleum supply bases, circles indicate those under construction, and triangles locate the refueling stations.

Place names on the broken line, from left to right: Bratsk, Irkutsk, Ulan-Ude, Chita, BAM Skovorodino Station, Khabarovsk.

Place names on the solid line, from left to right: Ust'-Kut, Tayura, Lena Station, Kazachinskiy, Nizhniy Angarskiy, Nizhneangarsk I Station, Chara Station, Berkakit, Ugol'naya Station, Tynda Station, Nora Station, Berezovka Station, Urgal Station, Komsomol'sk.

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## RAIL SYSTEMS

### MOSCOW RAIL CAR REPAIR INITIATIVE ENDORSED

Moscow ZHELEZNODOROZHNYY TRANSPORT in Russian No 2, Feb 83 pp 52-54

[Text] Under the conditions of steadily growing volumes of shipments in rail transport and the acute shortage of rolling stock, questions involving careful treatment of cars and containers and keeping them in good working order are of primary importance. It is no secret that due to the high intensity exploitation of rolling stock, the increase in its carrying capacity and mass introduction of mechanized means for loading and unloading, rail cars are damaged during loading and unloading operations and shunting. The poor condition of the cars has an extremely negative effect on the protection provided for the freight. There are many cars that have minor damage which makes it impossible to load separate freight articles. All this causes definite problems in meeting plan quotas for shipment in the national economy. These and other shortcomings in rail transport were discussed at the November (1982) Plenum of the CPSU Central Committee by comrade Yu. V. Andropov, general secretary of the CPSU Central Committee, in his speech at the Plenum. One of the reasons for the constant failures in providing the required quantity of rolling stock is the large number of cars in need of repair.

In connection with this, the initiative of a number of industrial enterprises in Moscow to provide assistance to railway workers and to increase their contribution to improving the work of the Moscow Railway Center is important and timely. Proceeding from state interests to improve utilization of transport means, the collectives of these enterprises decided to carry out minor repair and maintenance of the bodies of rail cars and containers using their own forces and to dispatch them from the enterprises, empty and loaded, only in good technical and commercial repair. The initiators of this movement were the collectives of the motor vehicle plants imeni I. A. Likhachev, "Serp i molot", "Stankolit", "Krasnyy proletariy", the Lyublino machinery-casting plant, the Moscow tubing plant, the State Bearing Plant No 1, the Krasnopresnenskiy reinforced concrete construction plant of the Main Administration for Construction in Moscow, the reinforced concrete construction plant No 2 of the Main Administration for Building Materials in Moscow, and the Moscow Food Combine and the "Trehgornaya manufaktura" combine. The undertaking of these Muscovites has received high praise from the CPSU Central Committee and broad support among the labor collectives in the capital. The Moscow gorkom is doing a great deal of organizational work to spread this initiative.

The significance of the Muscovites' initiative--to improve organization, in cooperation with railway workers, of the repair of cars and containers and to dispatch them from the center only in good repair--is difficult to overestimate under the conditions of a shortage of rolling stock. Communists in the capital are reinforcing this with a series of effective measures and are solving creatively the task of stepping up freight shipments. Hundreds of agreements have already been signed with Moscow Railroad Administration which clearly define the responsibilities of both sides.

The enterprises--freight dispatchers and freight recipients--have taken on the responsibility of bringing every rail car or container into good technical repair after they have unloaded it or before it is loaded, and to release the cars onto the lines of the Ministry of Railways only after they have been put into good repair and cleaned of all the remnants of freight that had been carried previously. In order to accomplish this, plans have been made to organize special sections and brigades for the repair of rolling stock and to provide the repair process with all the necessary materials, spare parts and technical equipment.

The railway workers have the responsibility of providing practical assistance to enterprises in the organization of rail car and container repair and at the same time they should utilize more fully all available resources to increase the volume of repair work on cars and containers in the subdivisions of the rail car industry.

The agreements stipulate that effective measures should be taken to protect cars and containers during loading, unloading and shunting operations. A system has been defined for transferring rolling stock to an enterprise for repair and for the return of repaired equipment to the railways. Differentiated norms have been determined for the length of time a car or container should be under repair (from 0.5 to 2 hours), depending on the volume of work in each specific case. A system has also been established for accounting for layovers involved in loading operations and repairs and for utilization of repaired cars and containers. The time spent on repairs is excluded from the layover time for loading operations. Quality indicators have also been established for repair operations.

Today many enterprises in the capital are already repairing rail cars and containers. Specialized repair sections and brigades have been created and a system is being organized to provide a steady supply of materials and spare parts. At the motor vehicle plant imeni I. A. Likhachev, using their own forces the workers repair up to 400 cars per year. The workers there have taken on the job of restoring the covered rail cars--they hang doors, weld on metal parts that have come off and repair sheathing. Currently the repair base is being expanded, a shop is being built at the Kozhukhovo station. Organization of repair work on rail cars at the "Serp i molot" plant has made it possible to prepare empty cars quickly for loading, instead of sending them to the rail car depot in Lyublino, which used to take several days. At the railway shop in the State Bearing Plant No 1, a container repair section has been organized where the majority of the fitting, welding and carpentry work is done. The section works in two shifts. The plant party committee has

created an overall plan of action for regulation, improvement and providing technology for loading and transport operations, starting with the packaging of the bearings in the shops and ending with dispatching them to consumers. The Kacharov machinery plant also has a specific plan for joint operations with railway workers, specialized repair brigades have been created and sites have been equipped for examination and repair of rolling stock. A system has been organized for accounting for and controlling the cars that pass through.

The Moscow-Ryazan department of the Moscow Railroad Administration and the "Kompressor" plant signed an agreement which defines their mutual obligations. For each car that is to be repaired, the representatives of the administration and the plant provide a document indicating the volume of required work and the layover time needed for repairs. There are clauses concerning the list of spare parts provided to the plant by the railway, and organization of instruction of personnel in the regulations for carrying out current repairs. In a short period of time, a specialized section was created, personnel were trained and work sites were equipped with the necessary materials at the Krasnopresnenskiy reinforced concrete construction plant. In cooperation with workers from the Presnya station, effective control has been organized for the cars that pass through, repair technology has been worked out and spare parts and materials have been allocated. All this has made it possible to improve significantly the regular delivery of rolling stock to the plant.

Thanks to the active efforts of the Moscow gorkom, all of the new enterprises and organizations are being included in this important, major work. Industry is already providing substantial assistance to the center's railway workers. Last year, as a result of work carried out in accordance with agreements, 1350 freight cars and about 10,000 containers were repaired at Moscow's industrial enterprises. There was a decline in the number of cases of damage to rolling stock and a reduction in the time and means spent on bringing cars in for repair and on cleaning up repaired cars. The main point is that this made it possible to provide timely loading and dispatch of a great deal of freight, to step up delivery to consumers, and increase productivity of transport means. Estimates show that if this experience is spread to all the city's enterprises with spur tracks, it will be possible to repair an additional 40,000 cars and 30,000 containers per year.

A great deal of work is being done at the Moscow Railroad Administration to bring about universal incorporation of this valuable undertaking. Special agreements are being concluded among enterprises and departments, which provide for a system of delivering cars and containers to an enterprise for repair and then their return, they regulate the time spent on repair and account for layovers for freight operations and other issues. Also stipulated is the supply, when necessary, of lumber materials for repair of floors and walls, coverings for unloading hatches, platform boards, hatch and side bolts, and other spare parts. The car depots provide the enterprises with the necessary technical documentation and organize instruction of the workers in the regulations for repair of rail cars and labor safety techniques. Clearly defined, practical interaction between the workers from the stations and depots and the enterprises is organized and covers all questions tied to the repair of rail cars and containers.

The railway workers of the Moscow Main Railway Line are actively developing their own resources to increase the volume of repairs at depots and points for shipment preparation, through modernization of equipment, introduction of mechanization, and reduction in the proportion of manual labor. New repair sections are being created and equipped with the appropriate machinery. The collective of the Likhobory rail car depot, for example, is using its own forces to build an open mechanized site for rail car repair, as well as a specialized shop at the Moscow-Southern Port station. The site will be equipped with a gantry crane, electric jacks, and other machinery. At the new shop, uncoupling repair of rail cars will be completely mechanized. Bringing these capacities into operation will make it possible for the depot to increase the volume of repairs on rail cars and containers by a factor of approximately two. There was a significant increase in the capacities of rail car repair enterprises in the Novomoskovskiy department after their reconstruction, as has already been described in this journal. Powerful, highly mechanized production has been established at the Voskresensk rail car depot for the repair of cement carriers and at the Lyublino depot, for the half-cars.

The new initiative of the collectives of Moscow's industrial, construction and transport enterprises is of great national economic importance. Spreading the initiative to all major industrial and transport centers will make it possible to save many millions of rubles in state funds and will also make it possible to provide industrial enterprises with thousands of additional rail cars for national economic freight.

The idea of repairing rolling stock at industrial and construction enterprises using the enterprises' own forces also carries an important moral element. Concern for the rail car and its protection becomes the common concern of both the railway workers and those who use the rail cars.

Today's goal is to introduce the experience accumulated at the Moscow Railroad Center as quickly as possible at all railways and at all enterprises that receive freight in rail cars and containers. The most decisive steps must be taken to put the rolling stock in order, and to organize its improvement and regular repair. A permanent detachment must be set up to deal with damage to rail cars and containers and it must strive to have everyone recognize that rail cars and containers need to be treated as if they were one's own property. This way the national economy will receive additional resources of rolling stock in good repair, without increasing the actual quantity.

Special attention should be given to increasing discipline--production, economic and labor discipline. Party, trade union and Komsomol organizations are called on to play a large role here. Final results depend to a huge extent on their organizational efforts, exactingness and initiative. There must be constant improvement of educational work in the repair collectives, an atmosphere of activity and discipline must be created in them, people must be guaranteed an adequate amount of work, time should not be wasted, and efforts should be made to promote a high level of labor productivity.

Recently the board of the Ministry of Railways considered the question of taking measures to disseminate and introduce among the railways the initiative of Moscow's industrial, construction and transport enterprises, which took on the responsibilities, in cooperation with railway workers, of organizing repair of rail cars and containers and dispatching them from their enterprises only in good repair. Taking into account the important national economic significance of this undertaking, administration directors of the Ministry of Railways, railway systems and departments, and directors of territorial industrial railway transport associations were instructed by the board to take measures directed at broad dissemination of the Muscovites' initiative for putting all freight cars and containers into good repair, releasing after unloading and loading empty cars after they have been cleaned of remnants of previously transported freight. Work on implementation of this valuable initiative should be carried out locally in complete cooperation with ministries and enterprises of industry, construction and other sectors of the national economy, supported by the aid of local party and soviet organs.

The board outlined a number of priority tasks. Specifically, it assigned directors of railways and departments the task of taking the necessary measures for concluding special agreements with all industrial and construction enterprises located within the railway system, to establish a system for current repair of rail cars and containers. The agreements should contain regulations for a system of delivering cars and containers for repair, releasing them after repairs have been made, and accounting for the layover time. The layover time established in the agreements for repair work is not included in the layover time spent in loading operations. Railway workers have the responsibility of organizing instruction for workers at the enterprises in the regulations for current repair of freight cars and containers. The stations with which an enterprise is affiliated assign rail car workers or specially trained workers from other industries to be responsible for determining the volume of the repair work and for receiving rolling stock after it has been repaired. Enterprises are provided with spare parts and materials for the repair of rail cars and containers as needed with the presentation of the proper documents.

Also outlined are the development and implementation of additional measures to intensify and develop the repair base of the rail car industry, and further improvement in the organization of the work of depots and centers for preparing cars to carry freight. All this will make it possible to increase the number of cars and containers released from repair. With these goals, the shifts should be increased, there should be a higher level of mechanization at the centers, they should have more complete staffing, and they should be provided with the necessary materials and spare parts.

Railway workers should intensify control over the protection of rail cars and containers during loading and unloading and shunting operations and over the removal of remnants of previously transported freight. At every station the necessary measures should be taken to provide prompt examination and receipt of rail cars from the spur tracks of industrial enterprises.

The main administration of the rail car industry of the Ministry of Railways has developed special instructive directives for current repair of the bodies of rail cars and containers under the conditions of enterprises of different ministries and departments. They have been given to the various railway systems. These directives are the basic technological document for all the collectives.

The main administration for material and technical supply of the Ministry of Railways has been assigned the task of taking measures for the complete and prompt supply of materials and spare parts for the repair of rail cars and containers to the railways, primarily lumber and rolled ferrous metals in accord with the allocated funds. A system has been established for the railways to provide the ministry with accounting data on the repair of rail cars and containers by enterprises of other ministries and departments.

With the aim of conducting more organized work to disseminate the experience of the leading Moscow enterprises in providing rail cars and containers in good repair, special commissions have been created in the administrations of the railways and departments, headed by the directors of the railways and departments. These commissions have the task of systematically examining the course of the implementation of the rail car and container repair at industrial and construction enterprises, of providing practical assistance in the formation of specialized repair sections and brigades at the enterprises, in the supply of material and technical means, and in improving the quality of repair work.

The undertaking of the collectives of the capital's enterprises and the railway workers of the Moscow Main Railway Line is a major step forward in the campaign for an economical approach to the rail car fleet. The board of the Ministry of Railways has expressed confidence that the railway workers will do everything necessary to introduce the Muscovites' initiative everywhere. Broad dissemination of the initiative throughout the railway networks will make it possible to increase the intensity of utilization of the rail car fleet, it will improve the technical condition of the cars, and as preliminary estimates show, it will provide an additional daily freight capacity of 2200 cars. This will be a concrete contribution to improving the work of railway transport, to fulfilling the tasks of providing shipment of freight in the national economy, and to realizing the decisions of the November (1982) Plenum of the CPSU Central Committee.

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## RAIL SYSTEMS

### BRIEFS

NEW ELECTRIC TRAIN--A new electric train, operation of which reduces power expenditure by 20 percent, has been made at the Riga Railway Car Manufacturing Plant. Economy is achieved through the use of equipment in these trains which makes it possible to return current into the network when braking is applied. Tests of the first train are now under way. New electric rolling stock will go out on the lines this year. Savings in electric power from their use in 1983 alone will amount to 9.8 million kilowatt-hours. In addition to electric trains, the enterprise turns out diesel trains and street cars. One other new product has been made ready at the plant--the RVZ-7 street car. Tests of the new car are under way in Riga, Moscow and Kalinin. [Text] [Moscow IZVESTIYA in Russian 13 Mar 83 p 1] 8936

NEW OIL SHIPMENT ROUTE--Chimkent--The first block train has left the filling gantry of the Kazykurt station in the Chimkent Department for the Fergana Oil Refining Plant. With the commissioning of the Pavlodar-Chimkent pipeline, the need for shipments of "black gold" extracted in the Tyumen' fields by rail on the heavily traveled Pavlodar-Karaganda-Chu-Chimkent freight route has passed; this will make it possible to save up to a thousand units of rolling stock annually. The Alma-Ata Railroad will be transporting to Central Asia up to 3 million tons of this freight annually, although by a route four times shorter than the distance from Pavlodar to Fergana. In the near future, the complex of petrochemical enterprises in the south of Kazakhstan--the Chimkent Oil Refining Plant and the "Chimkentshina" Association, construction of which is being carried out in accordance with a decision of the 26th CPSU Congress--will become a recipient of the raw material. They will provide a broad region of industry and the agroindustrial complex with their output, having eliminated delivery of fuel for equipment from remote regions of the country as well. Departure of the first block train from Kazykurt has made the Alma-Ata Railroad a new trunk line supplying liquid freight [nalinaya magistral']. [Text] Moscow GUDOK in Russian 17 Mar 83 p 1] 8936

ROAD TO QUARTZITE DEPOSITS--Chita--Construction workers of the BAM [Baykal-Amur Trunk Line] and machine operators of the Chara-Tokko geological exploration expedition have completed construction of a 160-kilometer winter road from the Khanya station to the remote settlement of Torgo from the opposite direction. The center for studying the largest iron ore massif on the trunk line is right here. In the near future, researchers will arrive, which will make it possible

to speed up the overall study of billions of quartzite deposits. Later on, removal of the unique gemstone charoite, which until now has been brought to factories by helicopters and all-terrain vehicles in small blocks and small amounts, will be begun. [Text] [Moscow IZVESTIYA in Russian 25 Mar 83 p 2] 8936

RAILWAY CAR REPAIRS--Baku--Idle time of dockworkers when ships are being processed at the Baku maritime port has been eliminated. A train has arrived at the dock and dockworkers have begun to lower containers into a ship's hold. Loading is finished. However, the rolling stock does not leave the docks. Now fertilizers have to be loaded in it. However, the process engineers do not authorize work to begin: they have discovered that two cars have been damaged. Previously, such repair was performed by railroad shops, which required a great deal of time. Now the dockworkers themselves get down to work. "Such work organization is advantageous for both the railroad and for us," R. Akhundov, deputy chief of the Baku maritime port, said. "The railroad workers receive repaired cars, and we don't lose time." [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 26 Mar 83 p 1] 8936

ELECTRIC TRAIN BRAKE SYSTEM--There are just four cars in this electric train. It runs on the trunk lines of the Leningrad-Finland Department. But for the present it is not carrying passengers, but scientists. A great many instruments enmeshed in cables may be discerned through the windows of the cars. This is what B. Levitskiy, chief of the scientific research laboratory of the electrical traction department of the LIIZhT [Leningrad Institute of Railroad Transportation Engineers imeni V. N. Obraztsov], says: "We have developed a system of regenerative-rheostatic braking especially for the series-produced EP2 electric trains. It provides the opportunity to return most of the electric power back into the contact system. It may also be used in the future for warming the passenger cars. The installation eliminates extensive metal losses in the brake shoes. Calculating on one electric train, hundreds of thousands of kilowatt-hours of electricity and many tons of cast iron can be saved in a year. The system of electrical braking was developed by institute staff members A. Zelenchenko and O. Chander in close collaboration with specialists of the October Railroad and, in particular, the Leningrad-Finland Motorized Railway Car Depot. [Text] [Moscow GUDOK in Russian 30 Mar 83 p 4] 8936

CEMA RAIL STRENGTH MEETING--A meeting of the CEMA scientific and technical council on the problem of making and introducing rails and rail joints of improved operational durability began in Moscow 29 March. Delegations from Bulgaria, Hungary, the GDR, Poland, the USSR and Czechoslovakia are taking part in it. The meeting will consider the tasks of the scientific and technical council stemming from the decree of the CEMA Permanent Commission on Collaboration in the Field of Transport, and the CEMA standards for rails and rail joints will be discussed. Reports on research in the field of improving the durability of rails and rail joints will be heard. Responsible CEMA staff members in the transportation field, ferrous metallurgy, and the CEMA Institute

for Standardization are taking part in the work of the scientific and technical council. The conference was opened by B. A. Morozov, deputy minister of railways. The conference's work will continue until 1 April. [Text] [Moscow GUDOK in Russian 30 Mar 83 p 3] 8936

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OVERPASSES ON TAYSHET-LENA ROUTE--All drivers dream of overpasses over busy roads. This goes double for those having to wait a long time for their turn at a crossing on the 314th kilometer of Tayshet-Lena route. It is hard not to feel sorry for those drivers when the ground is covered with ice and there are traffic jams on the narrow uphill road. Many accidents happen there. After the Baykal-Amur route was opened, the MPS [Ministry of Transportation] appropriated 3.5 million rubles for construction of overpasses. Two twin overpasses finally opened. They stand next to each other over the railroad tracks. It would be logical to expect that a festive, grand opening of the overpasses will follow. Unfortunately, it seems that there is no host who would accept the completed work from builders. The overpasses, belonging to nobody, stand there towering over taiga, while below at the crossing whose maintenance is quite expensive, there are long car queues as before. [by K. Vaganova] [Text] [Moscow GUDOK in Russian 11 Jan 83 p 2] 9959

COMPUTERS COUNT RAILROAD CARS--Experimental use of domestic equipment that will automate counting cars brought for unloading has begun at Leningrad-Vitebsk line. The equipment was installed by Oktyabrskaya line computer center. Collectives at Kikerino, Slantsi, Tolmachevo, and Shushary stations were the first to convey information concerning cars that come, are unloaded, and left on consignees' access roads at specific times of the day. The implementation of a similar information system will soon begin at Leningrad-Moscow, Leningrad-Finland, and Volkovstroyevskiy sections of the route. As a result, the exact number of transportation cars will be monitored as early as March in all of Leningrad oblast, and not only at Leningrad railroad system. [by P. Slavin] [Text] [Leningrad LENINGRADSKAYA PRAVDA in Russian 12 Jan 83 p 1] 9959

TUNNEL FOR BAYKAL-AMUR RAILROAD--Tonnell'nyi. The BAM [Baykal-Amur Main Line] Zapadnaya section of Uoyan-Tonnell'nyi line has opened to construction trains. The first train already made the delivery to tunnel builders at the foot of Severo-Muyskiy range. An underground rail passage is being constructed through the many-kilometers thick range. Cooperation of machine operators, explosives experts, bridge builders, and road crews allowed for earlier completion of the work. Now transportation system builders are faced with a new task. As early as the first quarter of this year they obligated themselves to cut through the mountain range and open a bypass section above the tunnel to train runs. [Text] [Moscow GUDOK in Russian 13 Jan p 1] 9959

TESTING ELECTRIC TRAINS IN TALLINN-VNIIZhT [All-Union Scientific Research Institute of Railroad Transportation] and MIIT [Moscow Institute of Railroad Transportation Engineers] scientists tested, in cooperation with Pribaltiyskaya road experts, experimental EP12 impulse]regulated and traction-operated constant current electric trains at Tallinskiy suburban junction. The trains were constructed by Riga builders based on the VNII [All-Union Scientific Research Institute] car construction project. Tests on impulse-regulated thyristor transformers operating in electric trains demonstrated superiority of this system, as compared with previously used contact-rheostat regulating system. The new system saves about 10 percent of electric energy and may be useful for modernizing EP1 electric trains that are now in use. Such modernization will result in savings of 20.000 rubles annually per on 10-car stock. [Text] [Moscow GUDOK in Russian 13 Jan 83 p 2] 9959

NEW MPS TARIFFS FOR RAIL CARGO--Tariff changes for transporting container cargo and parcels are proposed by VNIIZhT employees in cooperation with leading MPS main cargo-carrying department experts headed by A. Kreynin, doctor of economics. Rates for loading-unloading operations were also reexamined. New tariffs and payments will help increase profitability of container cargo transportation. They were approved by the MPS and the SSSR Goskomtsen leadership. The new tariffs went into effect 1 January 1983. [Text] [Moscow GUDOK in Russian 13 Jan 83 p 2] 9959

NEW DUMP-CARS IN KALININGRAD--Kalininograd car-building plant completed assembling dump cars whose carrying capacity equals 145 tons. The cars are much more durable than those used previously. Tests conducted in mountain quarries showed that they can withstand 2-ton boulders falling from a height of 2 meters. This durability was accomplished by using so called "floating plate" in the construction of the car's base. [Text] [Moscow TRUD in Russian 14 Jan 82 p 1] 9959

RAILROAD OVER KAMA RIVER--Kazan'--Railroad over Kama River was turned over for use here ahead of time. Mostostroy trust subdivisions, which last November turned over the car crossing near Brezhnev city for permanent use, now laid rails on the same dam at Nizhnekamskiy hydroelectric station. The first construction train has already gone over those rails. The state commission accepted this important unit of the national economy with the grade "good." The new railroad branch line laid over the Kama bridge connected two important lines: Gor'kovskaya and Kuybishevskaya lines. The distance from KamAz and other enterprises of Nishnekamskiy territorial-industrial complex to Ural and Siberia has decreased as a result. G. Cherpakov's brigade, which worked according to the brigade contract method, showed best results at the construction site. [by R. Sabirov] [Moscow PRAVDA in Russian 25 Dec 82 p 1] 9959

BAM EXTENSION--The last section of steel tracks was laid at the BAM [Baykal-Amur Main Line] taiga station of Fevral'sk (the BAM Eastern section). This is a new labor victory--the line's main run became 140 kilometers longer. [Text] [Moscow ECONOMICHESKAYA GAZETA in Russian No 51, Dec 82 p 5] 9959

ALL-UNION ROAD SAFETY INSPECTION--All-Union road safety inspection will be conducted from 1 January to 31 December 1983 in rural areas, according to the decision of the VTsSPS [All-Union Central Trade Union Council] secretariat and the SSSR MVD [USSR Ministry of Internal Affairs] collegium. The inspection will help improve car transportation services for agriculture which, in turn, will help fulfill the food program. Kolkhozes, sovkhozes, and other agricultural enterprises and organizations will participate in the inspection. Thus, the inspection will include the following ministries: ministry of agriculture, ministry of land reclamation and water resources, ministry of procurement, and the ministry of fruit and vegetable industry and SSSR Goskomsel'khoztekhnika. A total of 118 VTsSPS and SSSR MVD diplomas with monetary bonuses were established for the winning collectives. [Text] [Moscow TRUD in Russian 5 Jan 83 p 2] 9959

NEW RAILWAY IN CHEREPOVETS--Permanent electric train runs have begun on Vologda-Cherepovets lines. Electrification of this important line will increase its traffic capacity almost 20 percent. Railroad stocks carrying Vorkutsk coal and northern Magnitka metal will travel on the line even faster than before. [by V Okunev] [Text] [Moscow SEL'SKAYA ZHIZN' in Russian 21 Jan 83 p 1] 9959

DONETSK OBLAST' RAILWAY--Zhdanovtyazhmash association begun production of new tanks with increased load capacity. Today the first moving stock lot transporting weak nitric acid left Middle Asia. Zhdanov machine builders will complete over 700 new-type tanks before the end of the Five-Year Plan. [Text] [Moscow GUDOK in Russian 22 Jan 83 p 4] 9959

COMPUTERS IN TRANSPORTATION--A 2-day training course in Belorussian transportation system management using computers ended 20 January in Minsk, S A Pashinin, deputy minister of communications was in charge of the training. Lectures on practical use of computers in operations management were presented by A G Andreyev, line manager; Yu V Bilinskiy, computer center director; Ye V Stepanov, deputy chief, MPS [Ministry of Communications] Main Traffic Administration; Yu S Khandkarov, chief of MPS computer technology, and others. Doctors of Technological Sciences: Ye M Tishkin, L P Tulupov, and P S Gruntov talked about scientific foundations of computer use in transportation. Trainees, who came to the Belorussian capital from all of the network lines, visited the line computer center, the Minsk loading station, the Minsk department and the line traffic services. They became acquainted with practical use of computers. [by GUDOK correspondent] [Text] [Moscow GUDOK in Russian 23 Jan 83 p 2] 9959

LOCOMOTIVES REPAIRED IN UKRAINE--Khar'kov--Not everybody knows that during its lifetime a diesel locomotive wears out hundreds of bandages--wheelset steel belts that run on the tracks. It is not easy to repair such metal "shoes". Scientists at the Ukraine Correspondence Polytechnic Institute proposed a new simple and effective method. They designed a means by which the belt comes off effortlessly after the metal is heated with industrial frequency current. The heat affects only one part of the wheel. When the belt expands, it is removed or put on easily. The staff saw the value of this technique right away. As the TASS correspondent was informed at the institute, this method has been implemented at Astrakhan', Daugavpils, and Ussuriysk plants. There is great demand for it, but its further implementation is hindered by

the lack of central planning by responsible organizations, including the Ministry of Communication. If all specialized plants implement the method proposed by Kharkov scientists, the national economy will be able to save a great deal of material resources, and idle time for locomotives will considerably decrease. [Text] [Moscow GUDOK in Russian 26 Jan 83 p 2] 9959

DAL'NEVOSTOCHNAYA RAILWAY--Khabarovsk--A broken terrain route became an ally of Dal'nevostochnaya railway engineers in saving energy. Now train engineers make use of so-called recuperative braking method: when descending, they turn on the traction engine and the electric current produced by generators is supplied to the contact system. Based on efficient locomotive use and advanced methods of conducting trains, the Dal'nevostochnaya railway collective was able to make a commitment to save 300 tons of diesel fuel and millions of kilowatt-hours of electric energy this year. [TASS] [Text] [Moscow SOTSIALISTICHESKAYA INDUSTRIYA in Russian 6 Feb 83 p 2] 9959

BAM EASTERN SECTION--Installation of metal framework of a bridge over Bureya River in the mountains has begun. A 600 meters long railroad pass is the last one to be built at the BAM [Baykal-Amur Mainline] Vostochnoye section. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 6, Feb 83 p 5] 9959

EXPRESS ELECTRIC TRAINS AT GOR'KOVSKIY LINE--Runs of express electric trains began ahead of schedule at Krasnoufimsk-Yanaul section of Gor'kovskiy line. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 51, Dec 82 p 5] 9959

DEPUTY COMMUNICATIONS MINISTER V. N. BUTKO--Valeriy Nikolayevich Butko has been confirmed as deputy communication minister. By a decree of the communications minister he was nominated chief, Main Traffic Administration. Valery Nikolayevich Butko was born in 1934. He is Russian and a CPSU member since 1960. He is a communication engineer specializing in railway operation. He has worked for the rail transportation system since 1957. He worked as an assistant station manager, traffic and junction dispatcher, station assistant manager and manager, line section assistant manager and manager, and transportation services manager--line assistant manager. From 1977 to 1979 Mr Butko was employed as Severnaya line first assistant manager. In 1979 he became Kemerovskaya line manager. [Text] [Moscow GUDOK in Russian 5 Jan 83 p 3] 9959

GEORGIA RAILWAY--Permanent railway traffic begun at the first, 31-kilometers long section of Marabda-Akhalkalaki line in Georgia. [Text] [Moscow EKONOMICHESKAYA GAZETA in Russian No 2, Jan 83 p 4] 9959

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## PORTS AND TRANSSHIPMENT CENTERS

### BETTER BONUS AWARD SYSTEM FOR TRANSSHIPMENT WORKERS URGED

Moscow MORSKOY FLOT in Russian No 3, Mar 83 pp 10-11

[Article under rubric "Administration and Economics" by R. Rez, senior scientific association, TsNIIMF [Central Scientific-Research Institute of the Maritime Fleet]: "NPGRTU: Problems of Providing Incentive"]

[Text] During the years of the 10th Five-Year Plan there arose in Leningrad labor cooperation among collectives of seamen, railroad workers, motor-vehicle operators, and river workers, which became famous as the organization of the transportation process on the basis of continuous plan-schedule for operation of the transportation center (NPGRTU). That labor undertaking, which was approved in 1978 by the CPSU Central Committee, became widespread. During the years that have passed, the maritime ports, for the branch as a whole, achieved good results, basically thanks to this form of the organization of production.

At the same time, an analysis of the work performed by the transportation centers indicates that the further development of the interrelations among the workers in related areas is being restrained for the following reasons.

First, in the area of the organization of operational work these shortcomings are engendered by the lack of a system of through indicators and by the lack of coordination of the normative documents, which regulate the work of the enterprises that are part of the transportation center; by the poor quality of economic planning of the transportation process within the confines of the transportation center, which is uniform for all the enterprises that are part of it; by the lack of balance in the transportation capabilities of the types of transportation and the economic links that form the transportation center; and, finally, by the lack of the legal-organizational status of the transportation center.

Secondly, there is a lack of a special bonus system that supports the work performed in accordance with the NPGRTU and that is unevenly replaced by the payment of bonuses on the basis of the results of the socialist competition. In addition, the relatively small bonuses do not create the necessary self-interestedness for working on the basis of an intercoordinated plan.

At the same time, the essence of the NPGRTU lies precisely in the daily coordination of the plans of the related enterprises in the transportation

center for a considerable operational depth -- as long as ten days. The coordination of the plans stipulates the combining of the time for the approach of the ships, the railroad rolling stock, the motor transport, and the determination of the type of operation (loading-unloading), version of handling (transport to transport; transport to warehouse; warehouse to transport; etc.).

Hence there arise a number of questions that are linked with the regulation of the transportation center as a single organizational unit. This requires the following: first, uniform indicators that apply, across the board, to all participants in the transportation process; secondly, a system of uniform normative documents that regulate the work of the enterprises which are part of the transportation center; thirdly, the economic planning of the work of the enterprises in the transportation center (short-term, for one year; and medium-term, for five years); and, fourthly, the balancing of the opportunities of the various types of transportation and their economic links that are part of the transportation center.

All these problems arose in the practical activities of the transportation centers within the NPGRTU system at the present time. But not a single one of the indicated questions has received any final resolution: the the uniform, across-the-board, indicators are nonexistent; there is no normative document which is common for all types of transportation, which regulates the operation of the transportation center; the recommendations concerning the single plan for the shipment of cargoes in mixed communication as a form of state planning have not been legalized on the proper level and have not been introduced into the work practice of the transportation centers; the opportunities of the types of transportation that form the transportation center have not yet been balanced; and there has been a particular lag in the development of the portside railroad stations. The last-mentioned problem is the most complicated one, since its resolution requires capital investments.

These shortcomings, unconditionally, reduce the effectiveness of the work of the transportation centers and lead to unnecessary complications and additional difficulties. The resolution of the unregulated questions is an urgent task. This is one way of improving the work of the transportation centers. But there also exists another way -- the elimination of the shortcomings in the area of the providing of the material incentives for the workers in maritime transport.

As has been noted, the lack of the necessary state regulation for the work of the transportation centers has led to a situation in which the providing of material incentives for the participants in the NPGRTU is carried out by means of paying incentive awards to the winners in the comprehensive socialist competition. This situation cannot be deemed to be normal, inasmuch as the transportation centers resolve, primarily, a production task of importance to the national economy and the social factors, which include the socialist competition, cannot fully replace the comprehensive influence exerted by the material and psychological incentives. The socialist competition is first of all a means of exerting a psychological influence upon the labor collective and upon the individual worker. Therefore the providing of material incentives for the participants in the NPGRTU requires a special bonus system. The benefits of this are attested to by the following circumstances.

First, the NPGRTU is an interrelated system of planning and administration of the transportation process not only at the present moment, but also for the long-term period.

Secondly, operating within the NPGRTU are several related transportation enterprises and organizations, the work of which must be directed toward the single goal not only on the basis of the coordination of the plans, but also by means of the exertion of an economic effect, that is, by the payment of bonuses on the basis of the established indicators and conditions for the paying of bonuses.

The lack at the present time of a uniform system of the paying of bonuses for work on the basis of the NPGRTU is leading to a situation in which the collective efforts of the participants in the transportation process in the attainment of the best results are either given no material incentive at all, or, has already been mentioned, are paid bonuses for other types (in small amounts). As a result there is a break in the psychological and material relationship: labor-result-bonus. The paying of bonuses to participants in the NPGRTU must be changed.

First of all it is necessary to decide what should be encouraged. For this purpose it is desirable to formulate the criterion for the operation of the transportation center, since, on the basis of its requirements, it becomes possible to determine the items to be encouraged. Inasmuch as various types of transportation interact at the transportation center, the criterion must contribute to the achievement of a benefit for the national economy as a whole.

The proper functioning of the transportation center under NPGRTU conditions is possible on the basis of a single technological scheme, which must stipulate the coordinated bringing in of the transportation means, the coordination of all the basic and auxiliary operations, and the operations control of the transshipment of the cargoes, and this, in the final analysis, must guarantee the continuity of the transportation process. This, in its turn, is one of the conditions for the reduction of the amounts of time needed to process the cargoes through the transportation center. But at what price is this reduction achieved?

Society is, indeed, interested in the amount of labor and material resources that is expended at such time. In addition, the national economy needs an increases in the volume of loading and unloading to avoid the springing up of any disproportions between the increasing volume of output to be transported and the volume of the shipments.

Proceeding from these hypotheses, one can attempt to formulate the criterion for the operation of the transportation center. It must be the reduction of the time required to process the cargoes through the transportation center under conditions of a reduction of the labor and material expenditures to process a unit of rolling stock and increase in the overall volume of loading and unloading.

Guided by these requirements, it is necessary to make a selection of the indicators and conditions for the paying of bonuses, as applicable to the

organizations of the maritime fleet. The center of the functioning of the transportation center is the maritime port; the second organization of the maritime transportation is the steamship agencies which own the ships, whose ships are being processed in the port.

But taking into consideration the fact that not all the workers at the ports and steamship agencies have anything to do with the NPGRTU, it is necessary to isolate the structural units that are engaged in the indicated activities.

In the ports they will be: the administration and chief dispatcher's office at the port; the cargo regions and the railroad group at the port; the transportation and forwarding office; and the container department.

In the steamship agencies they will include: the administrations (services) for shipments, for ports, for the providing of services to the transport fleet; the KhEGS[expansion unknown], of the Inflot main maritime agency; and the crews of the transport ships.

It is also necessary to determine the indicators and conditions that will be used subsequently when developing the appropriate statutes governing the payment of bonuses.

For ports it is necessary to establish as the basic indicator the observance and reduction of the normative time periods required to process the transportation means. For the freight regions and the railroad group at the port, it is desirable to establish as the basic indicator also the observance and reduction of the normative time periods required to process the transportation means; and for the transport-forwarding officers and container departments, the observance of the time periods required for the bringing in and the shipping out of the cargoes.

In the steamship agencies the basic indicator will differ somewhat from the corresponding indicators for the ports, inasmuch as, working under NPGRTU conditions, the steamship agencies act first of all as contractors for the port, which guarantee the prompt delivery of the ships that have been prepared for cargo processing. Therefore the chief element in the interrelationship between the port and the steamship agency will be the providing of the ships and the information about that which precedes it. It is necessary to establish, as the basic indicator for all the structural units of the steamship agency which support the work on the basis of the NPGRTU, the observance of the time periods required for the providing of the ships.

Those are the recommendations for the creation of a system of material incentives for the work of the transportation centers, which recommendations pertain only to enterprises of maritime transport. Of course, it would be better if one created a single system of bonuses for all types of transportation which are operating in the transportation centers. But this is apparently a job for the future. For the time being, however, it is possible to develop a self-contained special bonus system for maritime transport, the source of financing of which will be the material incentive fund of the steamship agency

or port. The resolution of this question, as was already mentioned, does not go beyond the confines of the branch.

There are all justifications for asserting that the results of the work of the transportation centers will become more and more effective if a special system of bonus payments is used.

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